

forming a via opening in said stack;

depositing a sacrificial inorganic dielectric in the via opening, wherein the sacrificial inorganic dielectric substantially filling the via opening and substantially covering the top surface of the stack;

depositing a photoresist material on the sacrificial inorganic dielectric;

developing the photoresist material;

forming a line opening in the stack and the sacrificial inorganic dielectric, said line opening substantially aligned with said via opening;

selectively removing the sacrificial inorganic dielectric; and

filling the via opening and the line opening with conducting material.

2. (Amended) The method of Claim 1 wherein said sacrificial inorganic dielectric comprises methylsiloxanes, phenylsiloxanes, methylphenylsiloxanes, methylsilsesquioxanes, methylphenylsilsesquioxanes, silicates, perhydrosilazanes, hydridosiloxanes or organohydridosiloxanes described by the general formula $(H_{0.4-1.0}SiO_{1.5-1.8})_n(R_{0.4-1.0}SiO_{1.5-1.8})_m$ wherein the sum of n and m is from about 8 to about 5000, and mixtures thereof.

4. (Amended) The method of Claim 1, wherein the organic intermetal dielectric layer comprises an organic dielectric that comprises polyimides, polytetrafluoroethylene, parylenes, fluorinated and non fluorinated poly(arylene ethers), polymeric material obtained from phenyl-ethynylated aromatic monomers, fluorinated amorphous carbon, and mixtures thereof.

7. (Amended) The method of claim 5, wherein the hardmask layer comprises a material comprising silicon oxynitride and silicon oxide.

10. (Amended) The method of claim 8, wherein the etchstop layer comprises a material comprising silicon oxide.

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11. (Amended) The method of Claim 8, wherein the second organic intermetal dielectric layer comprises an organic dielectric that comprises polyimides, polytetrafluoroethylene, parylenes, fluorinated and non fluorinated poly(arylene ethers), polymeric material obtained from phenyl-ethynylated aromatic monomers, fluorinated amorphous carbon, and mixtures thereof.
12. (Amended) The method of claim 8, wherein the hardmask layer comprises a material comprising silicon oxynitride and silicon oxide.
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15. (Amended) The method of clam 13 wherein said inorganic intermetal dielectric layer comprises a material that comprises silicon oxide, fluorinated silicate glass, or organohydridosiloxanes described by the general formula $(H_{0.4-1.0}SiO_{1.5-1.8})_n(R_{0.4-1.0}SiO_{1.5-1.8})_m$ wherein the sum of n and m is from about 8 to about 5000, and mixtures thereof.
16. (Amended) The method of claim 13, wherein the hardmask layer comprises a material comprising silicon oxynitride and silicon oxide.
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18. (Amended) The method of Claim 1 wherein said conducting material comprises aluminum, copper, tungsten, and mixtures thereof.
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20. (Amended) The method of Claim 1 wherein said substrate comprises semiconductor wafers, dielectric layers, or metal interconnect layers in integrated circuits.
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22. (Amended) A method of making conducting vias and conducting lines on a substrate comprising:
- depositing a stack having a top surface on a substrate, wherein the stack comprises a first organic intermetal dielectric layer and a hardmask layer;
- forming a line opening in said stack;
- depositing a sacrificial inorganic dielectric in the line opening, wherein the sacrificial inorganic dielectric substantially filling the line opening and substantially covering the top surface of the stack;

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depositing a photoresist material on the sacrificial inorganic dielectric;
developing the photoresist material;
forming a via opening in the stack and the sacrificial inorganic dielectric;
selectively removing the sacrificial inorganic dielectric; and
filling the via opening and the line opening with conducting material.

23. (Amended) The method of Claim 22 wherein said sacrificial inorganic dielectric comprises methylsiloxanes, phenylsiloxanes, methylphenylsiloxanes, methylsilsesquioxanes, methylphenylsilsesquioxanes, silicates, perhydrosilazanes, hydridosiloxanes or organohydridosiloxanes described by the general formula $(H_{0.4-1.0}SiO_{1.5-1.8})_n(R_{0.4-1.0}SiO_{1.5-1.8})_m$ wherein the sum of n and m is from about 8 to about 5000, and mixtures thereof.

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25. (Amended) The method of Claim 22, wherein the organic intermetal dielectric layer comprises an organic dielectric that comprises polyimides, polytetrafluoroethylene, parylenes, fluorinated and non fluorinated poly(arylene ethers), polymeric material obtained from phenyl-ethynylated aromatic monomers, fluorinated amorphous carbon, and mixtures thereof.

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28. (Amended) The method of claim 26, wherein the hardmask layer comprises a material comprising silicon oxynitride and silicon oxide.

31. (Amended) The method of claim 29, wherein the etchstop layer comprises a material comprising silicon oxide.

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32. (Amended) The method of Claim 29, wherein the second organic intermetal dielectric layer comprises an organic dielectric that comprises polyimides, polytetrafluoroethylene, parylenes, fluorinated and non fluorinated poly(arylene ethers), polymeric material obtained from phenyl-ethynylated aromatic monomers, fluorinated amorphous carbon, and mixtures thereof.